IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (previously amended), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

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1. (previously amended) A data conversion method for displaying an image, comprising conversion of original frame data indicating gradation of a pixel into display frame data defining a light emission timing of a display element in a display frame period, the conversion, comprising:

determining a light emission waveform in accordance with display frame data of plural frames containing a current frame and a previous frame;

performing Fourier expansion of an error between the determined light emission waveform and a target light emission waveform defined by the original frame data corresponding to the determined light emission waveform; and

setting the display frame data of the current frame so that a sum of error components, with respective weights that are obtained by weighting each Fourier component, is minimized.

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2. (previously amended) The data conversion method according to claim 1, wherein the weight of each Fourier component is set individually for each light emission color of a display element.

3. (previously amended) The data conversion method according to claim 1, wherein the weight of each Fourier component, of a frequency above a flicker frequency, is set to "0".

4. (previously amended) The data conversion method according to claim 1, wherein a period of each display frame is different from a period of each original frame, comprising;

a current frame and a previous frame and a target gradation waveform defined by original frame data corresponding to the gradation waveform; and

setting the display frame data of the current frame so that a sum of error components, with respective weights that are obtained by weighting each Fourier component, is minimized.

5. (previously amended) The data conversion method according to claim 4, wherein the Fourier expansion is performed for each time range having a unit of the display frame period.

6. (previously amended) The data conversion method according to claim 4, wherein the Fourier expansion is performed for each time range having a unit of the original frame period.

7. (previously amended) The data conversion method according to claim 1, wherein the target light emission waveform is an interpolation waveform obtained by linear approximation of a transition of discrete target light emission values in each original frame.

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8. (previously amended) A data conversion method for displaying an image, comprising conversion of original frame data indicating gradation of a pixel into display frame data defining a light emission timing of a display element in a display frame period, the conversion including the steps of;

performing Fourier expansion of an error between a gradation waveform indicating a transition of gradation to be displayed and a target gradation waveform, an error with weight obtained by setting weight to each Fourier component being small;

performing Fourier expansion of an error between a gradation waveform indicating a gradation transition defined by display frame data of plural frames containing the current frame and the previous frame and a target gradation waveform defined by original frame data corresponding to the gradation waveform; and

setting the display frame data of the current frame so that a sum of error components with weight that are obtained by weighting each Fourier component

9. (previously amended) The data conversion method according to claim 8, wherein the weight of each Fourier component is set individually for each light emission color of a display element.

10. (previously amended) The data conversion method according to claim 8, wherein the weight of each Fourier component, of a frequency above a flicker frequency, is set to "0".

11. (previously amended) The data conversion method according to claim 8, wherein the display frame period is different from the original frame period.

12. (previously amended) The data conversion method according to claim 11, wherein the Fourier expansion is performed for each time range having a unit of the display frame period.

13. (previously amended) The data conversion method according to claim 11, wherein the Fourier expansion is performed for each time range having a unit of the original frame period.

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14. (previously amended) The data conversion method according to claim 8, wherein the target gradation waveform is an interpolation waveform obtained by linear approximation of a transition of discrete target gradation values in each original frame.

15. (previously amended) A display device expressing gradation of original frame data by controlling a light emission timing of a display element in accordance with display frame data, the device comprising:

an original frame memory memorizing original frame data of at least one frame;

a display frame memory memorizing display frame data of at least one frame;

a data converting circuit outputting data corresponding to an input data value as display frame data of an n-th frame, responding to an input of original frame data of the n-th frame, original frame data of at least an (n-1)th frame from the original frame memory and display frame data of at least an (n-1)th frame from the display frame memory, wherein the display frame data outputted by the data converting are prepared by:

determining a light emission waveform in accordance with display frame data of plural frames containing a current frame and a previous frame;

performing Fourier expansion of an error between the determined light emission waveform and a target light emission waveform defined by the original frame data corresponding to the determined light emission waveform; and

setting the display frame data of the current frame so that a sum of error components, with respective weights that are obtained by weighting each Fourier component, is minimized.

16. (previously amended) A display device expressing gradation of original frame data by controlling a light emission timing of a display element in accordance with display frame data, the device comprising:

an original frame memory memorizing original frame data of at least one frame;

a display frame memory memorizing display frame data of at least one frame;

a data converting circuit outputting data corresponding to an input data value as display frame data of the n-th frame, responding to an input of original frame data of the n-th frame, original frame data of at least an (n-1)th frame from the original frame memory and display frame data of at least an (n-1)th frame from the display frame memory, wherein the display frame data outputted by the data converting circuit are prepared by:

performing a Fourier expansion of an error between a gradation waveform indicating a gradation transition defined by display frame data of plural frames containing a current frame and a previous frame and a target gradation waveform defined by original frame data corresponding to the gradation waveform; and

setting the display frame data of the current frame so that a sum of error components, with respective weights that are obtained by weighting each Fourier component, is minimized.

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17. (previously presented) A data conversion method to display an image, comprising:

determining a light emission waveform in accordance with display frame data of plural frames containing a current frame and a previous frame; and

performing Fourier expansion of an error between the determined light emission waveform and a target light emission waveform defined by the original frame data corresponding to the determined light emission waveform.

18. (new) The method as recited in claim 1, further comprising weighting the difference components responsive to human eye frequency sensitivity.

19. (new) The method as recited in claim 8, further comprising weighting the difference components responsive to human eye frequency sensitivity.